



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : C12N 15/00, A61K 39/12	A1	(11) International Publication Number: WO 00/28009 (43) International Publication Date: 18 May 2000 (18.05.00)
(21) International Application Number: PCT/AU99/00993 (22) International Filing Date: 10 November 1999 (10.11.99) (30) Priority Data: PP 7060 11 November 1998 (11.11.98) AU (71) Applicant (for all designated States except US): NORTH WESTERN HEALTH CARE NETWORK [AU/AU]; 10 Floor Connibere Building, Royal Melbourne Hospital, Flemington Road, Parkville, Victoria 3050 (AU). (72) Inventors; and (75) Inventors/Applicants (for US only): LOCARNINI, Stephen, Alister [AU/AU]; 13 Carlisle Avenue, East St Kilda, Victoria 3183 (AU). TORRESI, Joseph [AU/AU]; 9 Barriedale Court, Eltham, Victoria 3095 (AU). EARNEST-SILVEIRA, Linda [SG/AU]; 17 Kimberley Way, Bulleen, Victoria 3105 (AU). BARTHOLOMEUSZ, Angeline, Ingrid [AU/AU]; 64 Miller Street, Carnegie, Victoria 3163 (AU). (74) Agents: HUGHES, E., John, L. et al.; Davies Collison Cave, Level 3, 303 Coronation Drive, Milton, Queensland 4064 (AU).	(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published With international search report.	
(54) Title: BIOLOGICAL COMPOSITIONS, COMPONENTS THEREOF AND USES THEREFOR		
(57) Abstract <p>The present invention relates generally to an isolated Hepatitis B virus (HBV) with a surface component exhibiting an altered immunological profile relative to a reference HBV. A reference HBV is considered herein to comprise a composite or consensus nucleotide or amino acid sequence from HBV genotypes A through F. The isolated HBV of the present invention is considered herein to be an HBV variant relative to the reference HBV. The altered immunological profile renders the HBV variants of the present invention less susceptible to vaccines directed to the surface component. The HBV variants of the present invention generally arise from selective pressure following one or both of anti-HBV chemical therapy and in particular chemical therapy aimed at disrupting HBV polymerase activity or function and/or following immune pressure directed to the surface component. Immune pressure may result from natural exposure to HBV or following vaccination with an avirulent or attenuated HBV or with a component of an HBV. The present invention further provides a recombinant polypeptide and derivatives and chemical equivalents thereof corresponding to the surface component of the HBV variants. The HBV variants and recombinant polypeptides and their derivatives and chemical equivalents of the present invention are useful in biological compositions capable of inducing a neutralizing immune response to the HBV variant.</p>		